



Asia Pacific Health Security Action Framework

Strengthening Regional Operational Readiness in the Western Pacific

Findings from a Regional Mapping Exercise

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Introduction

Countries and areas across the Western Pacific Region continue to make significant progress in strengthening national preparedness and response capacities under the International Health Regulations (IHR, 2005). Investments in surveillance, laboratory systems, emergency coordination, workforce development and health emergency preparedness over the past two decades have strengthened the Region's ability to detect and respond to public health threats.

At the same time, recent emergencies highlight the need for the Region to maintain readiness for future public health crises. The COVID-19 pandemic demonstrated how rapidly health threats can spread across borders and disrupt global and regional supply chains, health systems and economies. More recent events including climate-related emergencies and outbreaks of mpox, Hantavirus and Ebola Bundibugyo virus disease further underscore that all countries — regardless of income level, size or geographic location — remain vulnerable to rapidly evolving and interconnected health threats.

In a world of increasingly interconnected risks, operational readiness depends not only on strong national capacities, but also on the ability of countries and partners to collaborate rapidly and effectively across borders. Regional coordination mechanisms, interoperable systems and shared assets can help countries respond more efficiently to emerging threats, particularly during large-scale or multi-country emergencies.

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Methodology

2.1 Mandate and Purpose

At the seventy-sixth session of the WHO Regional Committee for the Western Pacific in October 2025, Member States endorsed a plan to strengthen the operational readiness of the Region for public health emergencies, including steps to consult stakeholders and act on identified priorities (WPR/RC76.R2).

At the APHSAF Stakeholders Meeting (25-27 November 2025), a regional operational readiness mapping exercise and mapping tool were discussed and endorsed, to identify potential areas for regional collaboration and investment in operational readiness.

OBJECTIVES

- The mapping tool was designed to identify:
- existing regional assets/tools that support operational readiness;
 - opportunities to improve existing assets/tools or introduce new ones; and
 - the added value of such investment.

The mapping exercise focused specifically on regional tools and assets, defined as those that operate across or are used jointly by multiple countries or areas.

2.2 Data collection and contributors

A consultative approach was used to gather inputs from Member States, academic/research institutions and other regional partner organisations in the Western Pacific using the mapping tool. Inputs were collected through self-completed forms and facilitated discussions with WHO staff.

Inputs were collected between March and June 2026. As of 4 June 2026, a total of 246 individual inputs were collected from:

- 13 Member States;
- 5 academic/research institutions;
- 7 partner organisations.

An additional 28 inputs provided by WHO staff at regional and country office level were also included in the analysis, resulting in 274 total inputs. A list of contributing organisations is provided in **Table 1**.

2.3 Analysis

Inputs were grouped in the five health emergency components¹ outlined in the global WHO health emergency prevention, preparedness, response and resilience (HEPR) framework, which include and complement the IHR (2005) capacities and APHSAF.

- Collaborative surveillance
- Community protection
- Safe and scalable care
- Access to medical countermeasures
- Emergency coordination

Inputs within each component were further grouped into recurring themes, focusing on areas where regional collaboration could provide practical added value. The analysis further distinguished between: a) demand for expanded implementation, uptake or advocacy of existing tools and assets; and b) proposals for new or enhanced regional tools and assets.

The frequency with which themes were raised (i.e. number of 'mentions') was recorded as an indicator of stakeholder interest. Individual contributors to themes were also recorded.

2.4 Limitations

Several important limitations should be noted when interpreting the data collected. Firstly, the inputs collected reflect the perspectives and experiences of contributing stakeholders and may not comprehensively represent all regional stakeholders, assets or tools.

Secondly, the mapping exercise was designed to identify potential areas for regional collaboration and investment – it was not intended to produce a prioritized list of recommendations. The number of 'mentions' associated with specific themes should be viewed only as an indicator of stakeholder interest, and not as a final consensus or ranking. Further analysis and consultation with stakeholders and experts will be required to assess feasibility, sustainability, operational value and investment implications for any potential future initiatives.

Table 1. List of Contributors

Contributor	Code	Country	Organization
Member States	AUS	Australia	Department of Health, Disability and Ageing Department of Foreign Affairs and Trade Australian Centre for Disease Control Australian Defence Force
	BRN	Brunei Darussalam	Ministry of Health Centre for Disease Control and Prevention
	CHN	China	National Disease Control and Prevention Administration
	IDN	Indonesia	Ministry of Health
	JPN	Japan	Ministry of Health, Labour and Welfare Japan Institute for Health Security (JIHS), including ACPHEED Secretariat Establishment Office Japan International Cooperation Agency (JICA)
	NZL	New Zealand	New Zealand Institute for Public Health and Forensic Science
	LAO	Lao PDR	Ministry of Health
	MYS	Malaysia	Ministry of Health
	PHL	Philippines	Department of Health
	ROK	Republic of Korea	Korea Disease Control and Prevention Agency
	SGP	Singapore	Communicable Diseases Agency
	SLB	Solomon Islands	Ministry of Health and Medical Services
	VNM	Viet Nam	Ministry of Health
Academic/research institutions	DOH	Australia	Doherty Institute
	D-NUS	Singapore	Duke-NUS Centre for Outbreak Prevention, Duke-NUS Medical School
	HIR	Japan	Hiroshima University
	HYO	Japan	University of Hyogo
	VNU	Viet Nam	Vietnam National University
	VG-CARE	Viet Nam	Vietnamese-German Center for Medical Research
Partners	APACI	Australia	Asia Pacific Alliance for the Control of Influenza
	ASEAN	Indonesia	Association of Southeast Asian Nations Secretariat
	IFRC	Malaysia	International Federation of Red Cross and Red Crescent Societies, Asia Pacific Region
	ICAO	Thailand	International Civil Aviation Organization, Asia and Pacific Office
	IoP	Hong Kong SAR, China	Institute of Philanthropy
	NCCTRC	Australia	National Critical Care and Trauma Response Centre
WHO	WHO	Various	World Health Organization (Regional and Country Offices)

Findings

Collaborative Surveillance and Emergency Coordination components attracted the largest number of inputs – together accounting for over 53% of all responses – reflecting strong shared interest in these areas. Knowledge Management emerged strongly as a cross-cutting area across all components, with similar suggestions to improve resource-sharing, communities of practice and peer-learning – these inputs have been extracted and analysed as a separate component. **Table 2** below provides a summary of components, inputs and identified themes.

Table 2. Summary of components, inputs and identified themes

Component	#Inputs	Themes
1. Collaborative Surveillance	81	Public health intelligence (23) Lab networks / referral labs (20) Coordinated surveillance & risk assessment (16) Integrated data systems & analytics (13) Regional biorepositories (8) GISRS (2) Rapid diagnostics (2) Modelling (1) <i>AMR (1)*</i> <i>One Health (1)*</i>
2. Community Protection	33	Social listening (9) Vector control and WASH (6) Community engagement (3) Community-based disaster risk reduction (2) Emergency financing (2) One Health (2) Multi-sectoral initiatives (1) <i>Guidance, tools & training (8)*</i>
3. Safe and Scalable Care	31	Surge capacity (16) Guidance, tools & training (7) Clinical management networks (4) Occupational health / mental health and psychosocial support (2)
4. Access to Medical Countermeasures	35	Stockpile & supply chain (15) Medical countermeasures manufacturing & strategy (11) Advance purchase agreements / pooled procurement (5) Clinical trials (5) Regulatory pathway (4) Research & development (1)
5. Emergency Coordination	65	Incident management (12) Simulation exercises & reviews (12) Coordination platform (11) Workforce development (11) Surge capacity (8) Guidance, tools & training (5) Field epidemiology training (5) National public health agencies network (5)
6. Knowledge management (cross cutting)	29	Shared resource repositories (4) <i>Communities of practice / peer-learning (25)*</i>

* No new regional tools/assets suggested

Numbers in brackets “(..)” indicate ‘mentions’ – i.e. the number of times the theme was mentioned in all inputs. Because a single input could mention multiple themes, the total number of ‘mentions’ is higher than the total number of inputs. The numbers of inputs and mentions are included as a preliminary indication of stakeholder interest, and should not be interpreted as a prioritised ranking.

Contributors to the exercise highlighted strong interest in expanding the implementation, uptake and advocacy of many existing tools and assets, for example strengthened use of risk assessment tools, expansion of the Emergency Medical Teams (EMT) initiative, and the development of additional collaboration networks and communities of practice on specialized topics. The continued demand for work in these areas is acknowledged.

However, the primary purpose of this exercise was to identify opportunities for new regional collaboration on shared assets and tools to strengthen operational readiness across the Region. Accordingly, the following analysis focuses on key opportunities for new regional tools and assets or to significantly enhance or adapt existing ones.

A detailed list of identified regional operational readiness tools and assets – both existing and proposed – is provided in **Annex 1**.

3.1 Collaborative Surveillance

Collaborative surveillance generated the largest number of inputs within the mapping exercise, reflecting the critical role of regional information sharing, coordinated risk assessment and interoperable surveillance systems in supporting operational readiness.

Existing tools/assets: The Region has a strong foundation. Established laboratory networks such as GISRS (influenza), CoViNet (coronaviruses), EMPaCT (molecular pathogen characterisation), and coordinating networks for vaccine preventable diseases provide tested models for pathogen-specific regional collaboration. Event-based surveillance platforms including the WHO Epidemic Intelligence from Open Sources (EIOS) and the ASEAN BioDiaspora Virtual Center (ABVC) produce regular intelligence products. Sub-regional networks including Mekong Basin Disease Surveillance (MBDS) and the Pacific Public Health Surveillance Network (PPHSN) coordinate surveillance activities sub-regionally. A wide range of risk assessment tools – including Strategic Tool for Assessing Risks (STAR), Joint Risk Assessment Operational Tool (JRA OT), rapid risk assessment tools and others – are available and in use in multiple countries.

New opportunities: Contributors highlighted opportunities to further strengthen interoperability between surveillance systems, improve regional synthesis and intelligence-sharing, coordinate risk assessment and tools, and enhance laboratory referral pathways and surge capacity (particularly for Pacific Island Countries) and establish regional biorepositories. **Table 3** outlines the suggested new opportunities for regional tools/assets in this area.

Table 3. Regional tools/assets identified in Collaborative Surveillance

Theme	Key opportunities for new or enhanced regional tools/assets
Public health intelligence (23)	<ul style="list-style-type: none"> ◦ More widely shared intelligence ◦ A regional genomic surveillance system, aligned with EMPaCT ◦ Supplementary surveillance systems to strengthen early detection
Lab networks / referral labs (20)	<ul style="list-style-type: none"> ◦ Map and enhance regional lab networks
Coordinated surveillance and risk assessment (16)	<ul style="list-style-type: none"> ◦ Coordinated/enhanced regional public health intelligence and shared bulletins and dashboards ◦ Coordinated regional surveillance roadmap ◦ Coordinated regional/sub-regional risk assessments ◦ Coordination committees among aviation stakeholders to strengthen point of entry preparedness
Integrated data systems and analytics (13)	<ul style="list-style-type: none"> ◦ Interoperable multisource information ◦ Standardised data and tools ◦ Shared tools and platforms for analysis, data visualisation in real-time and reporting ◦ AI network or steering committee
Regional biorepositories (8)	<ul style="list-style-type: none"> ◦ Regional pathogen repository/biobanking collaborations
Global Influenza Surveillance and Response System (GISRS) (2)	<ul style="list-style-type: none"> ◦ Utilise Global Influenza Surveillance and Response System (GISRS) model for other regional/national priority pathogens
Rapid diagnostics (2)	<ul style="list-style-type: none"> ◦ Rapid diagnostics for new pathogens
Modelling (1)	<ul style="list-style-type: none"> ◦ Regional modelling network

3.2 Community Protection

Inputs related to community protection focused primarily on practical mechanisms to strengthen risk communication and community engagement. Vector control, water, sanitation and hygiene (WASH) and community-based disaster risk reduction were also highlighted by contributors, particularly in light of climate change.

Existing tools/assets: Existing regional tools and assets include social listening platforms, risk communication and community engagement networks, WASH coordination mechanisms, community-based health tools, public health and social measures (PHSM) guidance, and networks for social science and community engagement. Stakeholders also identified existing school-based preparedness initiatives, community-based disaster risk reduction approaches and cross-sectoral One Health platforms.

New opportunities: Contributors emphasized opportunities to better connect these systems regionally, strengthen operational learning and peer exchange, improve access to adaptable tools and communication resources during emergencies, and address emergency financing for both communities and response. **Table 4** outlines suggested new opportunities for regional tools/assets in this area.

Table 4. Regional tools/assets identified in Community Protection

Theme	Key opportunities for new or enhanced regional tools/assets
Social listening (9)	<ul style="list-style-type: none"> Enhanced use of social listening tools across region Regional platform for social listening and risk communication
Vector control & WASH (6)	<ul style="list-style-type: none"> Regional WASH emergency coordination platform Integration of climate health data/indicators Burden of disease studies and analysis
Community engagement (3)	<ul style="list-style-type: none"> Youth mobilisation strategies for preparedness and response School-based preparedness
Community-based disaster risk management (2)	<ul style="list-style-type: none"> A regional community-based disaster risk management (CBDRM) framework or guide drawing on diverse country experiences with different hazards Climate vulnerability assessments integrated into community protection planning
Emergency financing (2)	<ul style="list-style-type: none"> Financial mechanisms/emergency funds for community support to implement public health & social measures Financial mechanisms/emergency funds for public health emergency response activities
One Health (2)	<ul style="list-style-type: none"> One Health coordination protocols
Multisectoral platforms (1)	<ul style="list-style-type: none"> Joint Ministry of Health and Finance platforms to address health security issues

3.3 Safe and Scalable Care

Inputs related to Safe and Scalable Care focused primarily on surge capacity, EMTs, clinical management coordination and health facility preparedness. Contributors consistently emphasized opportunities to strengthen operational coordination and interoperability across clinical and emergency response systems.

Existing tools/assets: The Region has a range of established assets supporting safe and scalable care, including national and internationally-credited EMTs, the ASEAN Regional Capacity on Disaster Health Management (ARCH) project, hospital preparedness tools and guidance, and regional disaster health partnerships. Contributors highlighted national examples of initiatives supporting health facility preparedness and operational resilience that could inform regional tools, such as medical information systems in Japan to monitor health facility capacity in real-time, and Malaysia's MyHReF health facility resilience tool.

New opportunities: Contributors highlighted opportunities to improve coordination and interoperability between EMT systems, strengthen regional clinical management networks, and enhance surge deployment arrangements and responder support mechanisms. **Table 5** outlines suggested new opportunities for regional tools/assets in this area.

Table 5. Regional tools/assets identified in Safe and Scalable Care

Theme	Key opportunities for new or enhanced regional tools/assets
Surge capacity (16)	Regional emergency medical team (EMT) coordination hub(s) to link national/local EMTs and WHO-classified international EMTs
Guidance, tools & training (7)	Develop standards for climate resilient health infrastructure
Clinical management networks (4)	Formalise and strengthen regional clinical management networks Enhance teleradiologic / remote mentorship networks
Occupational health / mental health and psychosocial support (2)	Establish 'caring for carers' platforms

3.4 Access to Medical Countermeasures

Inputs related to Access to Medical Countermeasures focused on strengthening the Region’s ability to secure timely access to critical health emergency supplies during public health emergencies including personal protective equipment, vaccines, therapeutics, diagnostics and antidotes. Contributions highlighted lessons from recent emergencies, particularly the challenges associated with disrupted supply chains, limited access to vaccines, therapeutics and diagnostics, and the need for stronger regional coordination across procurement, manufacturing, regulatory and research functions.

Existing tools/assets: Existing regional tools and assets supporting access to medical countermeasures include the Disaster Emergency Logistics System for ASEAN (DELSA), ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre), WHO regional stockpile, regional procurement coordination arrangements, and ongoing initiatives to strengthen supply chain coordination and emergency logistics. Contributors also identified existing regional manufacturing capabilities, clinical trial coordination systems and regulatory cooperation mechanisms.

New opportunities: Stakeholders emphasized opportunities to strengthen standing arrangements for procurement and logistics, improve regional stockpile coordination, enhance regional production of medical countermeasures, accelerate clinical trials and collaborate on procurement and regulatory pathways. **Table 6** outlines the suggested new opportunities for regional tools/assets in this area.

Table 6. Regional tools/assets identified in Access to Medical Countermeasures

Theme	Key opportunities for new or enhanced regional tools/assets
Stockpile / supply chain (15)	<ul style="list-style-type: none"> Regional supply mapping / database / network for critical resources Shared inventory system across partner organisations Regional medical countermeasures stockpile / prepositioned supplies
Medical countermeasures manufacturing & strategy (11)	<ul style="list-style-type: none"> Map regional medical countermeasures manufacturing landscape Foster regional medical countermeasures production Coordinate demand and production Coordinate/strengthen existing national / ASEAN medical countermeasures self-reliance initiatives with region-wide efforts.
Advance purchase agreements / pooled procurement (5)	<ul style="list-style-type: none"> Standing/pre-negotiated agreements with manufacturers for vaccine, therapeutics and diagnostics (VTDs) for emerging and priority pathogens Regional pooled procurement of VTDs to leverage regional purchasing power
Clinical trials (5)	<ul style="list-style-type: none"> Pre-approved standardised clinical trial protocols; accelerated ethical approvals Regional coordination mechanisms for clinical trial networks and sharing of information and materials of pathogens with pandemic potential
Regulatory pathway (4)	<ul style="list-style-type: none"> Regional regulatory pathways / reliance framework to accelerate approval of products for emergency use
Research & development (1)	<ul style="list-style-type: none"> One Health university networks for collaborative research and development for zoonotic threats

3.5 Emergency Coordination

Emergency Coordination generated the second largest number of inputs in the mapping exercise, reflecting strong stakeholder interest in mechanisms that enable countries and partners to coordinate rapidly and effectively during public health emergencies. Contributors emphasized the importance of interoperable coordination systems, and established arrangements for information sharing, workforce mobilization and operational collaboration.

Existing tools/assets: The Region benefits from multiple established emergency coordination tools and assets including APHSAF, ASEAN coordination mechanisms, the Pacific Joint Incident Management Team (JIMT), GOARN surge mechanisms and public health emergency operations centre (PHEOC) networks. Existing systems also support operational learning, workforce development and information sharing across countries and partners.

Suggested tools/assets: Contributors highlighted opportunities to improve coordination between incident management systems and agencies, hold joint and multisectoral simulation exercises, strengthen workforce development and surge mechanisms, and leverage national public health agencies in the Region. **Table 7** outlines suggested new opportunities for regional tools/assets in this area.

Table 7. Regional tools/assets identified in Emergency Coordination

Theme	Key opportunities for new or enhanced regional tools/assets
Incident Management (12)	<ul style="list-style-type: none"> Regional PHEOC Managers / Incident Managers network Rapid regional videoconferences during public health emergencies Coordinated alert and response reporting
Simulation exercises and reviews (12)	<ul style="list-style-type: none"> Regular simulation exercises for regional response systems and functions
Coordination platform (11)	<ul style="list-style-type: none"> Regular forum / digital platform to connect regional health emergency leaders across countries ASEAN / WHO coordination Common calendar/forum to share and coordinate information on activities
Workforce development (11)	<ul style="list-style-type: none"> Public health emergency leadership development (e.g. Global Health Emergency Corps)
Surge capacity (8)	<ul style="list-style-type: none"> Shared database/platform of standby personnel across partners
Field Epidemiology Training (5)	<ul style="list-style-type: none"> Field Epidemiology Training Programme (FETP) response roster
Guidance, tools & training (5)	<ul style="list-style-type: none"> Develop practical regional standard operating procedures (SOPs)
National Public Health Agencies (5)	<ul style="list-style-type: none"> Regional National Public Health Agency (NPHA) Network

3.6 Knowledge Management

Knowledge Management emerged as a strong cross-cutting theme across all components of the mapping exercise. Contributors consistently highlighted the value of practical mechanisms to share experiences, tools, lessons learned and technical expertise across countries and partners. While relatively few contributors proposed entirely new tools, there was substantial demand to strengthen and expand existing knowledge-sharing approaches.

Existing tools/assets: Existing tools and assets include collaboration platforms and communities of practice, with strong demand for further communities on topics including genomic surveillance, surveillance and risk assessment, incident managers and more. Contributors also highlighted continued interest in peer-learning opportunities through sharing examples, good practices and impact stories.

Suggested tools/assets: In addition to enhancing communities of practice and peer-learning, contributors also suggested development of shared resource repositories to make existing content across partners more easily searched and accessed. In the context of risk communication and community engagement, standardised materials that can be adapted to specific audiences or hazards could also be made available. **Table 8** outlines the suggested new opportunities for regional tools/assets in this area.

Table 8. Regional tools/assets identified in Knowledge Management

Theme	Key opportunities for new or enhanced regional tools/assets
Shared resource repositories (4)	Shared resource repositories to improve accessibility and discoverability of existing content across agencies

Emerging Opportunities for Regional Action

The regional operational readiness mapping exercise identified a broad range of opportunities to strengthen collective readiness through improved regional coordination, interoperability and operational collaboration. Across all components, contributors consistently emphasized that future efforts should build on and better connect existing systems, rather than create parallel structures.

Recurring priorities included strengthening regional intelligence-sharing and coordinated risk assessment; improving interoperability between surveillance, laboratory and emergency management systems; and establishing more structured regional networks for operational coordination, surge deployment and peer learning. Contributors also highlighted opportunities to strengthen laboratory referral pathways, genomic surveillance collaboration, regional modelling and the use of digital tools and artificial intelligence to support decision-making. Several contributors emphasized the growing importance of climate-sensitive risks, including integrating climate and environmental data into surveillance and predictive risk assessment, and strengthening climate-informed preparedness planning.

Strong interest was also expressed in practical operational mechanisms, including regional EMT, interoperable incident management systems, regional workforce surge platforms, simulation exercises and shared operational standards. Several contributors highlighted opportunities to strengthen regional mechanisms to support

front-line workers in providing clinical, as well as mechanisms to support responder wellbeing and occupational health.

Across medical countermeasures, contributors emphasized opportunities to strengthen regional stockpiles, shared inventory and logistics systems, pooled procurement arrangements and standing agreements with manufacturers for vaccines, therapeutics and diagnostics. Additional opportunities included strengthening regional manufacturing collaboration, regulatory cooperation and clinical trial readiness.

Knowledge management emerged as a major cross-cutting priority. Contributors consistently emphasized the value of regional communities of practice, shared resource repositories and mechanisms to support operational learning, peer exchange and dissemination of good practices across countries and partners.

Taken together, the findings suggest that the Region already possesses many of the technical foundations required for stronger operational readiness. The principal challenge identified by contributors was not the absence of expertise or institutional capacity, but the need to better connect, coordinate and operationalize existing assets and capabilities at regional scale. Future efforts should continue to prioritize practical operational value, interoperability, sustainability and complementarity with existing systems, building stronger connections between national capacities and regional support mechanisms.

Proposed Next Steps

The findings from the regional operational readiness mapping exercise will be further discussed with Member States and partners at the APHSAF Stakeholders Meeting on 11 June 2026 in Kuala Lumpur, Malaysia.

Proposed next steps include:

1. Validate and refine the findings with Member States and partners through the APHSAF Stakeholders Meeting;
2. Agree on broad prioritization criteria to guide future analysis and decision-making;
3. Establish a technical working group to further review and assess identified opportunities, including:
 - operational feasibility;
 - potential regional impact and added value;
 - alignment with existing regional and global initiatives and mechanisms; and
 - potential investment, governance and partnership requirements for implementation;
4. Identify a subset of high-value opportunities for further technical development and consultation; and
5. Explore potential implementation pathways, including opportunities for phased or pilot approaches where appropriate.

Future work should continue to prioritize practical operational value, interoperability, sustainability and complementarity with existing systems.

The findings from this exercise provide an important foundation for strengthening collective operational readiness and regional resilience to future public health emergencies in the Western Pacific Region.

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Annex 1. Identified regional operational readiness tools/assets

Table 9. Regional tools/assets identified in Collaborative Surveillance

• Member State • Academic/research institutions • Partners • WHO

Theme	Suggested regional tools/assets
<p>1. Public health intelligence (23)</p> <p>Contributors</p> <ul style="list-style-type: none"> • BRN • CHN • IDN • LAO • MYS • SGP • SLB • VNM • APACI • ASEAN • IFRC • IoP • WHO 	<p>1.1 More widely shared intelligence</p> <ul style="list-style-type: none"> • Produce and share regular regional signal briefs (from EIOS) and trends analyses (support risk assessment, infodemic management) • Create a community of practice for EIOS users to share and verify public health events in a timely manner. • Utilise AI to consolidate multiple regional bulletins and create dashboards <p>1.2 A regional genomic surveillance system, aligned with EMPaCT</p> <ul style="list-style-type: none"> • To strengthen early threat detection <p>1.3 Supplementary surveillance systems to strengthen early detection</p> <ul style="list-style-type: none"> • Low-cost, text-based regional reporting networks to support community event-based surveillance. Targeted for low-resource settings • Utilise Emergency Medical Teams (EMT) minimum data set (MDS) as a bridge to share data between civ-mil (coordination) • Optimize climate change monitoring and early warning for climate-sensitive diseases by leveraging national-level experiences • Standardised wastewater surveillance protocols/norms. Support regional uptake and scaling of wastewater surveillance for detecting zoonotic spillover <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> • Advocacy for existing surveillance bulletins and dashboards • Enhance and expand EIOS by expanding national and local medias covered • Roll-out STAR regionally • Risk assessment training, guidance and experience-sharing, e.g. quick and immediate risk assessment (QIRA), Member State rapid risk assessment, joint risk assessment • Strengthen use of collaborative surveillance tools, including One Health tools
<p>2. Lab networks / referral labs (20)</p> <p>Contributors</p> <ul style="list-style-type: none"> • AUS • CHN • JPN • LAO • MYS • NZL • ROK • SGP • VNM • Doherty • VG-CARE • APACI • ASEAN • WHO 	<p>2.1 Map and enhance regional lab networks</p> <ul style="list-style-type: none"> • E.g. ASEAN Laboratory Network project • Develop regional priority pathogen list • Map pathogen competencies/experience • Biosafety and biosecurity; external quality assessment (EQA) collaboration • Support surge capacity (including sharing reagents & supplies) • Improve referral logistics for Pacific island countries and areas • Address equitable geographic representation, funding support <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> • Strengthen diagnostic capacities, including: <ul style="list-style-type: none"> - For specialized re/emerging pathogens - Genomics regional reference labs (pathogen-agnostic); external quality assessment for whole genome sequencing - Bioinformatics - Cross-border shipments - Strengthen EMPaCT Network

Theme	Suggested regional tools/assets
<p>3. Coordinated surveillance and risk assessment (16)</p> <p>Contributors</p> <ul style="list-style-type: none"> • CHN • JPN • LAO • NZL • SLB • SGP • ASEAN • ICAO 	<p>3.1 Coordinated/enhanced regional public health intelligence and shared bulletins and dashboards</p> <ul style="list-style-type: none"> • E.g. surveillance by ASEAN BioDiaspora Virtual Center (ABVC), Pacific Public Health Surveillance Network (PPHSN), WHO Epidemic Intelligence from Open Sources (EIOS) • Review and optimize (scope, frequency, and coverage) to streamline into a more coordinated approach <p>3.2 Coordinated regional surveillance roadmap</p> <ul style="list-style-type: none"> • Map and align existing regional surveillance mechanisms, e.g. ASEAN, Mekong Basin Disease Surveillance (MBDS), PPHSN, SEARO, WPRO, WHO Collaborating Centres • Ensure complementary with IHR requirements • Integrate One Health (e.g. zoonoses, food safety) <p>3.3 Coordinated regional/sub-regional risk assessments</p> <ul style="list-style-type: none"> • E.g. assessments by ASEAN Biological Threat Surveillance Centre (ABVC), PPHSN, WHO • Standardise risk assessment tools, methodologies, minimum standards, reporting • Integrate climate / hydrometeorological data • Develop a regional level joint risk assessment mechanism that can bring in concerned stakeholders and Member States <p>3.4 Coordination committees among aviation stakeholders to strengthen POE preparedness</p> <p><i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i></p> <ul style="list-style-type: none"> • Strengthen Mekong Basin Disease Surveillance • Strengthen Event Information Site/IHR National Focal Point capacities and information sharing • Improve/expand WHO–ABVC collaboration
<p>4. Integrated data systems and analytics (13)</p> <p>Contributors</p> <ul style="list-style-type: none"> • AUS • JPN • MYS • ROK • SGP • Duke-NUS • Hiroshima • IFRC • WHO 	<p>4.1 Interoperable multisource information</p> <ul style="list-style-type: none"> • Genomic surveillance systems, aligned with EMPaCT • Between EWARS and other systems (e.g. lab, genomic, event-based surveillance) • Consolidate and harmonise multi-source reporting data into a coherent, shared platform; across all hazard types (including chemical, toxin, radiation) <p>4.2 Standardised data and tools</p> <ul style="list-style-type: none"> • Standardise surveillance tools / data formats across countries • E.g. use EMT minimum data set; web-based portals for structured data entry <p>4.3 Shared tools and platforms for analysis, data visualisation in real-time and reporting</p> <ul style="list-style-type: none"> • Expand use of digital tools and artificial intelligence (AI) • Integrate multiple data sources • Integrate climate and environmental data for predictive risk analysis <p>4.4 AI network or steering committee</p> <ul style="list-style-type: none"> • Establish a network/steering committee to guide use of AI in public health emergencies • e.g. utilizing AI to improve decision-making, consolidate bulletins/data, avoid AI equity gap <p><i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i></p> <ul style="list-style-type: none"> • Strengthen integration between community-based surveillance data and formal surveillance systems

Theme	Suggested regional tools/assets
5. Regional biorepositories (8) Contributors <ul style="list-style-type: none"> • CHN • IDN • JPN • LAO • VNM • VG-CARE • ASEAN • WHO 	5.1 Regional pathogen repository/biobanking collaborations <ul style="list-style-type: none"> • Complement global BioHub system; could start with country-level biobanks • Address Nagoya Protocol compliance, country legal restrictions • Establish regional and national lists of biorepository facilities, including contact information and catalogues <i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i> <ul style="list-style-type: none"> • Advocacy on WHO Biohub • Ongoing work to establish ASEAN Biobank Framework & Council
6. Global Influenza Surveillance and Response System (2) Contributors <ul style="list-style-type: none"> • LAO • ROK 	6.1 Utilise Global Influenza Surveillance and Response System (GISRS) model for other regional/national priority pathogens <ul style="list-style-type: none"> • Expand GISRS scope in event of a novel respiratory outbreak <i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i> <ul style="list-style-type: none"> • Share country experiences including strategies to sustain integrated sentinel surveillance operations
7. Rapid diagnostics (2) Contributors <ul style="list-style-type: none"> • JPN • VG-CARE 	7.1 Rapid diagnostics for new pathogens <ul style="list-style-type: none"> • Regional norms/standards to rapidly develop new diagnostic assays • Validation mechanisms, including access to materials and external validation
8. Modelling (1) Contributor <ul style="list-style-type: none"> • VNU 	8.1 Regional modelling network <ul style="list-style-type: none"> • Standardise & update model parameters • Integrate expanded methodologies • Demonstrate practical use cases
9. Antimicrobial resistance (1) Contributor <ul style="list-style-type: none"> • LAO 	<i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i> <ul style="list-style-type: none"> • Utilise Global Antimicrobial Resistance and Use Surveillance System (GLASS) guidelines and reporting systems to strengthen national antimicrobial resistance surveillance • Use WHONET program to strengthen data management
10. One Health (1) Contributor <ul style="list-style-type: none"> • BRN 	<i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i> <ul style="list-style-type: none"> • Scale up use of Quadripartite One Health tools across region

Table 10. Regional tools/assets identified in Community Protection

• Member State • Academic/research institutions • Partners • WHO

Theme	Suggested regional tools/assets
1. Social listening (9) Contributors • CHN • SGP • VNM • APACI • IFRC • WHO	1.1 Enhanced use of social listening tools across region <ul style="list-style-type: none"> E.g. Talkwalker, Community Trust Index Share regular regional analyses of social listening trends including misinformation (e.g. monthly) Monitor climate-related health risk perception Link to community feedback mechanisms
	1.2 Regional platform for social listening and risk communication <ul style="list-style-type: none"> Detect and address misperceptions, and disseminate accurate information Share risk communication strategies
	<i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i> <ul style="list-style-type: none"> Enhance social science networks (e.g. BRIDGE) to include more partners and implementers. Address misinformation and inform risk communications content for preparedness & response. Adapt risk communication models for platforms dominant in specific countries (e.g. WhatsApp, WeChat, etc.)
2. Vector control & WASH (6) Contributors • AUS • LAO • NZL • SLB • IFRC • WHO	2.1 Regional WASH emergency coordination platform <ul style="list-style-type: none"> Cross-country information sharing Access to supplies Surge deployment
	2.2 Integration of climate health data/indicators
	2.3 Burden of disease studies and analysis
	<i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i> <ul style="list-style-type: none"> Awareness raising on available tools
3. Community engagement (3) Contributors • BRN • IFRC	3.1 Youth mobilisation strategies for preparedness and response <ul style="list-style-type: none"> Mobilise regional youth networks as workforce resource
	3.2 School-based preparedness <ul style="list-style-type: none"> School-based disaster risk management and emergency preparedness e.g. engaging youth/educators in public health and social measures
4. Community-based disaster risk management (2) Contributors • BRN • MYS	4.1 A regional community-based disaster risk management (CBDRM) framework or guide drawing on diverse country experiences with different hazards
	4.2 Climate vulnerability assessments integrated into community protection planning
5. Emergency financing (2) Contributor • JPN • ASEAN	5.1 Financial mechanisms/emergency funds for community support during lockdowns and public health social measures
	5.2 Financial mechanisms/emergency funds for public health emergency response activities <ul style="list-style-type: none"> E.g. exploratory ASEAN work on potential Public Health Emergency Fund
6. One Health (2) Contributors • SGP • APACI	6.1 One Health coordination protocols <ul style="list-style-type: none"> Develop regional One Health coordination protocols, including standardised threat identification mechanisms, cross-sectoral response frameworks, and shared surveillance systems that can be adapted by countries in the region.
	<i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i> <ul style="list-style-type: none"> Leverage the One Health approach and cross-sectoral platforms (ASEAN, SPC, APEC) to broaden engagement with non-health sectors in pandemic preparedness.

Theme	Suggested regional tools/assets
<p>7. Multisectoral platforms (1)</p> <p>Contributor</p> <ul style="list-style-type: none"> • ASEAN 	<p>7.1 Joint Ministry of Health and Finance platforms to address health security issues</p> <ul style="list-style-type: none"> • Establish platforms (e.g. working groups) to identify and advance multi-sectoral initiatives, such as public-private partnerships (PPPs); strategic investments in health care infrastructure; enhanced access to health care services; financing risk management
<p>8. Guidance, tools & training (8)</p> <p>Contributors</p> <ul style="list-style-type: none"> • BRN • SGP • VNM • Duke-NUS • IFRC • WHO 	<p><i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i></p> <ul style="list-style-type: none"> • Strengthen uptake of guidance and tools including <ul style="list-style-type: none"> - IFRC community-based health tools - POE assessment and contingency planning tool and guidance - Integrating mental health into preparedness and response - Public health and social measures (PHSM) tools, e.g. WHO PHSM Decision Navigator - BRIDGE network

Table 11. Regional tools/assets identified in Safe and Scalable Care

• Member State • Academic/research institutions • Partners • WHO

Theme	Suggested regional tools/assets
<p>1. Surge capacity (16)</p> <p>Contributors</p> <ul style="list-style-type: none"> • AUS • CHN • IDN • JPN • LAO • MYS • SGP • VNM • APACI • ASEAN • IFRC • NCCTRC • WHO 	<p>1.1 Regional emergency medical team (EMT) coordination hub(s) to link national/local EMTs and WHO-classified international EMTs</p> <ul style="list-style-type: none"> • Improve EMT interoperability and coordination (e.g. minimum standards, coordinated logistics, regional mechanisms for request, mobilization, deployment) • Identify the regional EMT deployment needs and disseminate the information to relevant EMTs and governments <hr/> <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> • Advocacy and support for EMT programme • EMT capacity building, mentorship, joint exercises • Expand the number of WHO-certified EMTs in the region, particularly from lower-income countries and areas. • Partners working to strengthen capacities in this area (e.g. NCCTRC; AUSMAT) • Strengthen ARCH Project (Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management) • Operationalise ASEAN Centre for Public Health Emergencies and Emerging Diseases (ACPHEED)
<p>2. Guidance, tools & training (7)</p> <p>Contributors</p> <ul style="list-style-type: none"> • IDN • MYS • SGP • VNM • WHO 	<p>2.1 Develop standards for climate resilient health infrastructure</p> <ul style="list-style-type: none"> • E.g. building on CLEAR-HF (Climate and Emergency Adapted Readiness for Health Facilities) tool, which consolidates three WHO tools <hr/> <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> • WHO tools: Water and sanitation for health facility improvement tool (WASHFIT); Hospital Safety Index; Climate-Resilient and Environmentally Sustainable Health Care Facilities framework (CRESH-CF) • Hospital preparedness and safety; Malaysia Healthcare Facility Resilience Tool (MyHReF) • Maintaining essential health services • Utilise IPC networks (e.g. IPC Club) as training platforms or teaching tools during emergencies to share knowledge and best practices
<p>3. Clinical management networks (4)</p> <p>Contributors</p> <ul style="list-style-type: none"> • LAO • PHL • APACI • WHO 	<p>3.1 Formalise and strengthen regional clinical management networks</p> <ul style="list-style-type: none"> • Not just ad hoc during emergencies • To cover infectious diseases and other hazards • Establish roster of clinical experts • Include hospitals, universities, WHO Collaborating Centres, medical societies <hr/> <p>3.2 Enhance teleradiologic / remote mentorship networks</p> <ul style="list-style-type: none"> • Build on the Pacific Syndromic Surveillance System (PSSS) model
<p>4. Occupational health / mental health and psychosocial support (2)</p> <p>Contributors</p> <ul style="list-style-type: none"> • HIR • IFRC 	<p>4.1 Establish 'caring for carers' platforms</p> <ul style="list-style-type: none"> • For EMTs and health workers, during and post-deployment • Prevent burnout, ensure proper rotation

Table 12. Regional tools/assets identified in Access to Medical Countermeasures

• Member State • Academic/research institutions • Partners • WHO

Theme	Suggested regional tools/assets
<p>1. Stockpile / supply chain (15)</p> <p>Contributors</p> <ul style="list-style-type: none"> • AUS • JPN • LAO • MYS • SGP • VNM • VG-CARE • APACI • ASEAN • IFRC • WHO 	<p>1.1 Regional supply mapping / database / network for critical resources</p> <ul style="list-style-type: none"> • Medical countermeasures, e.g. personal protective equipment, vaccines, therapeutics, diagnostics, antidotes etc. • Recent botulism example <p>1.2 Shared inventory system across partner organisations</p> <p>1.3 Regional medical countermeasures stockpile / prepositioned supplies</p> <ul style="list-style-type: none"> • Forecast demand for climate sensitive diseases; link to climate risk mapping • High-impact, low-probability therapeutics and antidotes • Examples of existing mechanisms: ASEAN Regional Stockpile; ASEAN Regional Reserve of Medical Supplies for Public Health Emergencies (RRMS); FRANZ Arrangement (France, Australia, New Zealand) in the Pacific • Consider incorporating RRMS into ACPHEED <p><i>Existing tools/assets – demand for expanded implementation, uptake or advocacy</i></p> <ul style="list-style-type: none"> • Strengthen WHO stockpiling and deployment system for rapid deployment of medical supplies and countermeasures • Strengthen use of the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Center) <ul style="list-style-type: none"> - Pre-negotiate international procurement, customs and transport of health emergency supplies - Align needs assessment, request and prioritization processes between ministries of health, emergency operations centres, Health Cluster partners and the AHA Centre - Test arrangements through joint exercises and after-action reviews
<p>2. Medical countermeasures manufacturing & strategy (11)</p> <p>Contributors</p> <ul style="list-style-type: none"> • BRN • CHN • IDN • JPN • LAO • SGP • VNM • VG-CARE 	<p>2.1 Map regional medical countermeasures manufacturing landscape</p> <p>2.2 Foster regional medical countermeasures production</p> <ul style="list-style-type: none"> • Dual-use manufacturing facilities • Formulation, fill-and-finish, component manufacture • Regional manufacturing tech transfer/knowledge exchange (south/south) • Technology transfer protocols and best practice sharing for research-to-manufacturing transitions, reduce implementation risks <p>2.3 Coordinate demand and production</p> <ul style="list-style-type: none"> • Pool demand across countries to enable sustainable manufacturing during peacetime and emergencies • Establish mechanism to coordinate production capacity reserves across the Region, providing surge supply support during emergencies. <p>2.4 Coordinate/strengthen existing national / ASEAN medical countermeasures self-reliance initiatives with region-wide efforts.</p>
<p>3. Advance purchase agreements / pooled procurement (5)</p> <p>Contributors</p> <ul style="list-style-type: none"> • BRN • JPN • VNM • WHO 	<p>3.1 Standing/pre-negotiated agreements with manufacturers for vaccine, therapeutics and diagnostics (VTDs) for emerging and priority pathogens</p> <p>3.2 Regional pooled procurement of VTDs to leverage regional purchasing power</p> <ul style="list-style-type: none"> • Learn from ASEAN, EU-HERA, PAHO approaches

Theme	Suggested regional tools/assets
<p>4. Clinical trials (5)</p> <p>Contributors</p> <ul style="list-style-type: none"> • JPN • ROK • SGP • VG-CARE 	<p>4.1 Pre-approved standardised clinical trial protocols; accelerated ethical approvals</p> <ul style="list-style-type: none"> • Leverage International Clinical Trials Registry Platform (ICTRP) and network <p>4.2 Regional coordination mechanisms for clinical trial networks and sharing of information and materials of pathogens with pandemic potential</p> <ul style="list-style-type: none"> • Accelerate vaccine development timelines by pooling expertise and avoiding duplication • Shared clinical networks to enable faster patient recruitment and multi-site trials
<p>5. Regulatory pathway (4)</p> <p>Contributors</p> <ul style="list-style-type: none"> • BRN • SGP • VNM • VG-CARE 	<p>5.1 Regional regulatory pathways / reliance framework to accelerate approval of products for emergency use</p>
<p>6. Research & development (1)</p> <p>Contributor</p> <ul style="list-style-type: none"> • WHO 	<p>6.1 One Health university networks for collaborative research and development for zoonotic threats</p>

Table 13. Regional tools/assets identified in Emergency Coordination

• Member State • Academic/research institutions • Partners • WHO

Theme	Suggested regional tools/assets
<p>1. Incident Management (12)</p> <p>Contributors</p> <ul style="list-style-type: none"> • CHN • JPN • LAO • MYS • SGP • SLB • VNM • ASEAN • ICAO • WHO 	<p>1.1 Regional Public Health Emergency Operations Centre (PHEOC) Managers / Incident Managers network</p> <ul style="list-style-type: none"> • Improve interoperability of incident management practices, info-sharing • Joint exercises, after action reviews, peer support • Develop communications system, or expand access to Event Information System • Link ASEAN EOC Network and WHO PHEOC networks regionally and globally <p>1.2 Rapid regional videoconferences during public health emergencies</p> <ul style="list-style-type: none"> • Real-time information sharing between countries beyond formal IHR channels • Build on ASEAN EOC Network virtual conferences • Recent examples of WHO Communities of Practice (e.g. mpox, Hantavirus) <p>1.3 Coordinated alert and response</p> <ul style="list-style-type: none"> • Improve timeliness, completeness of reporting (e.g. OCHA ReliefWeb 5W) • Develop standard operating procedures for cross-border emergency coordination. <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> • Expand use of the Pacific Joint Incident Management Team (JIMT) to also support preparedness and coordinate on potential/emerging hazards • Operationalise JERMAP for Incident Managers as a platform to facilitate broader exchange of resources & event information (can link to EIS) • Promote regional adoption of ePHEM (electronic Public Health Emergency Management) as a common, interoperable platform across countries; regional ePHEM support and customization • Strengthen coordination between aviation stakeholders and public health authorities • Strengthen the Western Pacific PHEOC community of practice (particularly the regional node under the EOC-NET framework)
<p>2. Simulation exercises and reviews (12)</p> <p>Contributors</p> <ul style="list-style-type: none"> • AUS • CHN • LAO • SGP • VNM • DOH • HIR • ASEAN • WHO 	<p>2.1 Regular simulation exercises for regional response systems and functions</p> <ul style="list-style-type: none"> • Potentially engage INFOSAN focal points • Expand to engage local level / test in-country coordination • Make exercises more multi-sectoral and inter-agency • Joint simulation exercises between Asia Pacific countries to test cross-regional coordination mechanisms and communication systems <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> • IHR Exercise Crystal – annual regional exercise to test IHR communications • Regional SPAR / capacity assessment results to develop shared evidence base to prioritise collective investments. • Integration of health emergencies into national disaster response exercising • Tools, guidance and support for uptake of 7-1-7, early/intra/after-action reviews • Simulation exercise design guidance and support <ul style="list-style-type: none"> - Develop climate risk scenarios - Greater continuity between exercises, capability strengthening activities
<p>3. Coordination platform (11)</p> <p>Contributors</p> <ul style="list-style-type: none"> • AUS • IDN • JPN • LAO • SGP • ASEAN • WHO 	<p>3.1 Regular forum / digital platform to connect regional health emergency leaders across countries</p> <ul style="list-style-type: none"> • Build on existing high level coordination forums (e.g. ASEAN Defence Ministers Meetings, expert working groups); reduce duplication • Leverage existing political alignment (taking limited membership and scope into consideration) <p>3.2 ASEAN / WHO coordination</p> <ul style="list-style-type: none"> • Coordinate ACPHEED development; leverage ACPHEED once operation to integrate operations • Share good practices from ASEAN disaster response coordination

Theme	Suggested regional tools/assets
	<ul style="list-style-type: none"> Scale ASEAN JMOIR (Joint multi-sectoral outbreak investigation & response) Collaboration through the ASEAN Health Cluster 2 (Responding to All Hazards and Emerging Threats) <p>3.3 Common calendar/forum to share and coordinate information on activities</p> <ul style="list-style-type: none"> E.g. meetings, simuex, trainings <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> Maintain APHSAF as bi-regional platform Utilise as coordination mechanism during next emergency (e.g. JERMAP)
<p>4. Workforce development (11)</p> <p>Contributors</p> <ul style="list-style-type: none"> BRN JPN ROK D-NUS HYO ASEAN NCCTRC 	<p>4.1 Public health emergency leadership development</p> <ul style="list-style-type: none"> Expand ASEAN PHEM, Global Health Emergency Corps programmes to other countries Build regional alumni network to sustain peer learning and create roster of surge emergency managers Include diverse professionals where relevant (e.g. nurses in leadership positions) <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> Partner support to strengthen health emergency capacities, EMTs, training, exercises, assessments etc. Leverage existing strong training materials across countries as a source for others - e.g. EOC Network already offers a broad range of training modules that national counterparts can download. Mapping of institutions that can support capacity strengthening
<p>5. Surge capacity (8)</p> <p>Contributors</p> <ul style="list-style-type: none"> AUS BRN JPN PHL ROK VNM DOH WHO 	<p>5.1 Shared database/platform of standby personnel across partners</p> <ul style="list-style-type: none"> Could include national rapid response teams, FETP graduates, public health nurses, other professionals Enhance deployment efficiency during large-scale emergencies <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> Coordination of expert/surge deployments through Global Outbreak and Response Network (GOARN) <ul style="list-style-type: none"> Expand GOARN to support deployments for preparedness and prevention Expand expertise for greater range of hazards (e.g. chemical, biological, radiological, nuclear, cyber) Relevant WHO Collaborating Centres to consider joining to leverage technical expertise and surge capacity
<p>6. Field Epidemiology Training (5)</p> <p>Contributors</p> <ul style="list-style-type: none"> BRN LAO PHL VNM 	<p>6.1 Field Epidemiology Training Programme (FETP) response roster</p> <ul style="list-style-type: none"> Similar to GOARN, aimed at early-career professionals Rapid peer technical support and deployment during multi-country events Link national rapid response teams, FETP graduates into shared deployment pool FETP trainees get hands-on training and field work <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> National, regional, ASEAN, WHO FETP and FETP-v Update/enhance FETP+; provide more training options Upskill FETP fellows/graduates More routine Community of Practice platform for members & alumni Share examples of sustainable and adaptable models for FET implementation Continue WHO WPRO FET Fellowships; create continuous networking and capacity-building opportunities after fellowship
<p>7. Guidance, tools & training (5)</p> <p>Contributors</p> <ul style="list-style-type: none"> IDN VNM HIRO 	<p>7.1 Develop practical regional standard operating procedures (SOPs)</p> <ul style="list-style-type: none"> e.g. ASEAN Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP); annex for how countries can accept an EMT <p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> Advocacy on hazards from products other than food and medication

Theme	Suggested regional tools/assets
	<ul style="list-style-type: none"> • Disseminate PHEOC guidance • Disseminate latest Go.Data update, encourage experience sharing
<p>8. National Public Health Agencies (5)</p> <p>Contributors</p> <ul style="list-style-type: none"> • AUS • CHN • IDN • VNM • WHO 	<p>8.1 Regional National Public Health Agency (NPHA) Network</p> <ul style="list-style-type: none"> • To provide technical expertise, regional risk assessment, other operational support during health emergencies.

Table 14. Regional tools/assets identified in Knowledge Management

• Member State • Academic/research institutions • Partners • WHO

Theme	Suggested regional tools/assets
<p>1. Shared resource repositories (4)</p> <p>Contributors</p> <ul style="list-style-type: none"> • LAO • MYS • D-NUS • IFRC 	<p>1.1 Shared resource repositories to improve accessibility and discoverability of existing content across agencies</p> <ul style="list-style-type: none"> • E.g. (Standardised) tools/frameworks, webinars, case studies, AARs, SimEx etc • Subjects may include: <ul style="list-style-type: none"> - Surveillance and risk assessment tools/frameworks - Community engagement and risk communication tools - Standardised community engagement materials that can be contextualised by location / audience / hazard
<p>2. Communities of practice / peer-learning (25)</p> <p>Contributors</p> <ul style="list-style-type: none"> • AUS • CHN • BRN • JPN • LAO • MYS • SGP • VNM • D-NUS • HIR • HYO • VG-CARE • APACI • ICAO • NCCTRC • WHO 	<p>Existing tools/assets – demand for expanded implementation, uptake or advocacy</p> <ul style="list-style-type: none"> • Communities of Practice (CoPs) or collaboration platforms for: <ul style="list-style-type: none"> - Implementation science / evidence generation / operational research - Lab diagnostics and genomic surveillance - National measles and polio focal points - Surveillance/risk assessment practitioners - Public health and social measures - WASH - Risk communications and community engagement - PHEOC and Incident Managers - Disaster health management networks (e.g. ASEAN Institute for Disaster Health Management, ARCH/ARCH+ projects) - Infection prevention and control (IPC) • Sharing examples, good practices, impact stories, e.g. <ul style="list-style-type: none"> - Information systems: G-MIS (Gathering Medical Information System); EMIS (Emergency Medical Information System) (JPN) - GISRS experiences including country strategies to sustain integrated sentinel surveillance operations